

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: February 18, 2004

ATTY DOCKET NO.  
2004\_0217SERIAL NO.  
NEWAPPLICANT  
Mitsuaki OSHIMAFILING DATE  
February 18, 2004

GROUP

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
R-C	AA	5,311,550	5-10-94	Fouche et al.			
R-C	AB	4,630,287	12-16-86	Armstrong			
R-C	AC	4,271,527	6-2-81	Armstrong			
R-C	AD	5,050,188	9-17-91	Dirr			
R-C	AE	5,398,073	3-14-95	Wei			
R-C	AF	5,452,015	9-19-95	Hulyalkar			
R-C	AG	5,565,932	10-15-96	Citta et al.			
R-C	AH	5,481,412	1-2-96	Bannai et al.			
R-C	AI	3,909,721	9-30-75	Bussgang et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
R-C	AJ	0365431	4-25-90	EP				X
R-C	AK	0485105	5-13-92	EP			X	
R-C	AL	92/14343	8-20-92	WO			X	
R-C	AM	89/08366	9-8-89	WO			X	
R-C	AN	0031193	7-1-81	EP			X	

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

R-C	AO	Shinji Matsumoto et al., "200 Mb/s 16 QAM Digital Radio-Relay System Operating in 4 and 5 GHz Bands", Japan Telecommunications Review, January 1982, vol. 24, no. 1, pages 65-73.
R-C	AP	M. Pecot et al., "Compatible Coding of Television Images, Part 2. Compatible System", Signal Processing Image Communication, October 2, 1990, no. 3, pages 259-268.
R-C	AQ	Mitsuaki Oshima, "Constellation-Code Division Multiplex for Digital HDTV", IEEE, 1992, pages 1086-1092.

EXAMINER

DATE CONSIDERED

7/28/09

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: February 18, 2004

ATTY DOCKET NO.  
2004\_0217SERIAL NO.  
NEWAPPLICANT  
Mitsuaki OSHIMAFILING DATE  
February 18, 2004

GROUP

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/RC/	AA	4,227,152	10-7-80	Godard et al.			
/RC/	AB	4,525,846	6-25-85	Bremer et al.			
/RC/	AC	4,751,478	6-14-88	Yoshida			
/RC/	AD	4,891,806	1-2-90	Farias et al.			
/RC/	AE	4,903,125	2-20-90	Parker			
/RC/	AF	4,937,844	6-26-90	Kao			
/RC/	AG	5,164,963	11-17-92	Lawrence et al.			
/RC/	AH	5,555,275	9-1996	Oshima			
/RC/	AI	5,565,926	10-15-96	Bryan et al.			

## FOREIGN PATENT DOCUMENTS

/RC/		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
/RC/	AJ	0311188	4-12-89	EP			X	
/RC/	AK	0329158	8-23-89	EP			X	
/RC/	AL	64-5135	1-10-89	JP			X	
/RC/	AM	63-28145	2-5-88	JP			X	
/RC/	AN	62-133842	6-17-87	JP			X	

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

/RC/	AO	Tricia Hill et al., "A Performance Study of NLA 64-State QAM", IEEE Transactions on Communications, vol. COM-31, June 1983, no. 6, pages 821-826.
/RC/	AP	Hideki Ishio et al., "A Proposal of a Carrier Digital Transmission System Using Multi-Level APSK", pages 1-20. <i>date</i>
/RC/	AQ	Shanmugam, "Digital and Analog Communication Systems" 1979, p. 272.

EXAMINER

/Robert Chevalier/

DATE CONSIDERED

07/28/2009

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: February 18, 2004

ATTY DOCKET NO.  
2004\_0217SERIAL NO.  
NEWAPPLICANT  
Mitsuaki OSHIMAFILING DATE  
February 18, 2004

GROUP

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/RC/	AA	5,105,442	4-14-92	Wei			
/RC/	AB	4,048,572	9-13-77	Dogliotti et al.			
/RC/	AC	5,282,019	1-25-94	Basile et al.			
/RC/	AD	5,311,547	5-10-94	Wei			
/RC/	AE	5,267,021	11-30-93	Ramchandran et al.			
/RC/	AF	5,038,219	8-6-91	Yamashita et al.			
/RC/	AG	5,087,975	2-11-92	Citta et al.			
/RC/	AH	5,086,340	2-4-92	Citta et al.			
/RC/	AI	5,243,629	9-7-93	Wei			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
/RC/	AJ	53-137657	12-1-78	JP			X	
/RC/	AK	0282298	9-14-88	Europe			X	
/RC/	AL	0392538	10-17-90	Europe			X	
/RC/	AM	0490552	6-17-92	Europe			X	
/RC/	AN	0506400	9-30-92	Europe			X	

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

/RC/	AO	Khaled Fazel et al., Combined multilevel coding and multiresolution modulation, February 8, 1993, Pages 1081-1085
/RC/	AP	P. Hoeher et al., Performance of an RCPC-Coded OFDM-based Digital Audio Broadcasting (DAB) System, IEEE Global Telecommunications Conference "Globecom '91", December 2-5, 1991, Vol. 1 of 3, Pages 2.1.1 - 2.1.7
/RC/	AQ	K. M. Uz et al., Combined multiresolution source coding and modulation for digital broadcast of HDTV*, 1992, Pages 283-292

EXAMINER

/Robert Chevalier/

DATE CONSIDERED

07/28/2009

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include cop. this form with next communication to applicant.

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: February 18, 2004

ATTY DOCKET NO.  
2004\_0217SERIAL NO.  
NEWAPPLICANT  
Mitsuaki OSHIMAFILING DATE  
February 18, 2004

GROUP

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/RC/	AA	5,142,353	8-25-92	Kageyama et al.			
/RC/	AB	5,197,061	3-23-93	Halbert-Lassalle et al.			
/RC/	AC	5,291,289	3-1-94	Hulyalkar et al.			
/RC/	AD	5,166,924	11-24-92	Moose			
/RC/	AE	4,940,954	7-10-90	Aubert et al.			
/RC/	AF	5,128,758	7-7-92	Azadegan et al.			
/RC/	AG	5,038,402	8-6-91	Robbins			
/RC/	AH	5,638,112	6-10-97	Bestler et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
/RC/	AI	0448492A1	9-25-91	Europe				X
/RC/	AJ	0485108A2	5-13-92	Europe			X	
/RC/	AK	0525641A2	2-3-93	Europe			X	
/RC/	AL	0540231A2	5-5-93	Europe			X	
/RC/	AM	0531046A2	3-10-93	Europe			X	

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

/RC/	AN	K. M. Uz et al., Multiresolution Source and Channel Coding for Digital Broadcast of HDTV, 1992, Pages 61-69.
/RC/	AO	Nambi Seshadri et al., Multi-Level Block Coded Modulations with Unequal Error Protection for the Rayleigh Fading Channel, Vol. 4, No. 3, May-June 1993, Pages 325-334.
/RC/	AP	William F. Schreiber, Spread-Spectrum Television Broadcasting, SMPTE Journal, August 1992, Pages 538-549.

EXAMINER

/Robert Chevalier/

DATE CONSIDERED

07/28/2009

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include cop, this form with next communication to applicant.

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: February 18, 2004

ATTY DOCKET NO.  
2004\_0217SERIAL NO.  
NEWAPPLICANT  
Mitsuaki OSHIMAFILING DATE  
February 18, 2004

GROUP

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/RC/	AA	5,063,445	11-5-91	Nishizawa et al.			
/RC/	AB	5,819,000	10-6-98	Oshima			
/RC/	AC	5,999,569	12-7-99	Oshima			
/RC/	AD	5,892,879	4-6-99	Oshima			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
/RC/	AE	7-99522	4-11-95	Japan			abstract	
/RC/	AF	7-79415	3-20-95	Japan			abstract	
/RC/	AG	5-75568	3-26-93	Japan			abstract	
/RC/	AH	86-07223	12-4-86	WO			X	
/RC/	AI	2 187 611	9-9-87	Great Britain			X	
/RC/	AJ	85/04541	10-10-85	WO			X	
/RC/	AK	04-196822	7-16-92	Japan			abstract	
/RC/	AL	2-166979	6-27-90	Japan			abstract	
/RC/	AM	64-74836	3-20-89	Japan			abstract	
/RC/	AN	53-108215	9-20-78	Japan			abstract	

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

/RC/	AO	Martin Vetterli et al., Multiresolution Coding Techniques for Digital Television: A Review, Multidimensional Systems and Signal Processing, Volume 3, May 1992, Pages 161-187.
/RC/	AP	Ezio Biglieri et al., Introduction to Trellis-Coded Modulation with Applications, April 6, 1992, Pages 173-207.
/RC/	AQ	English Language Abstract of European Patent No. 93 30 7575

EXAMINER

/Robert Chevalier/

DATE CONSIDERED

07/28/2009

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: February 18, 2004

ATTY DOCKET NO.  
2004\_0217SERIAL NO.  
NEWAPPLICANT  
Mitsuaki OSHIMAFILING DATE  
February 18, 2004

GROUP

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/RC/	AA	4,636,876	1-13-87	Schwartz			
/RC/	AB	4,855,692	8-8-89	Kennard et al.			
/RC/	AC	4,873,701	10-10-89	Tretter			
/RC/	AD	4,958,360	9-18-90	Sari			
/RC/	AE	5,115,453	5-19-92	Calderbank et al.			
/RC/	AF	5,168,509	12-1-92	Nakamura et al.			
/RC/	AG	6,049,651	4-11-00	Oshima			
/RC/	AH	6,256,357	7-3-01	Oshima			
	AI						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
/RC/	AJ	0122805	10-24-84	EP			X	
/RC/	AK	63-180280	7-25-88	JP			abstract	
/RC/	AL	64-68144	3-14-89	Japan			abstract	
/RC/	AM	5-218978	8-27-93	Japan				X
/RC/	AN	3-69295	3-25-91	Japan				X

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

/RC/	AO	Kazuhiko Nitadori, Synthesis of Multichannel Orthogonal VSB Signals by Quadrature Method, 1976 International Conference on Communications, June 14-16, 1976, Volume 1, Pages 3-25 - 3-29.
/RC/	AP	Thomas M. Cover, Broadcast Channels, IEEE Transactions on Information Theory, January 1972, Pages 2-14
/RC/	AQ	"Optimum Weighted PCM for Speech Signals", Sundberg, IEEE Transactions on Communications, Volume COM-26, No. 6, June 1978, Pages 872-881.

EXAMINER

/Robert Chevalier/

DATE CONSIDERED

07/28/2009

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: February 18, 2004

ATTY DOCKET NO.  
2004\_0217SERIAL NO.  
NEWAPPLICANT  
Mitsuaki OSHIMAFILING DATE  
February 18, 2004

GROUP

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/RC/	AA	5,170,413	12-8-92	Hess et al.			
/RC/	AB	5,600,672	2-4-97	Oshima et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
/RC/	AC	57-39629	3-4-82	Japan			abstract
/RC/	AD	58-161547	9-26-83	Japan			abstract
/RC/	AE	63-180222	7-25-88	Japan			abstract
/RC/	AF	92/22162	12-10-92	WO			X
/RC/	AG	2-94814	4-5-90	Japan			abstract
/RC/	AH	61-70861	4-11-86	Japan			abstract
/RC/	AI	2-218279	8-30-90	Japan			abstract
/RC/	AJ	2,095,435	5-10-92	Canada			X
/RC/	AK	91/20137	12-26-91	WO			X
/RC/	AL	2-141049	5-30-90	Japan			X
/RC/	AM	2-195732	8-2-90	Japan			abstract
/RC/	AN	5-167633	7-2-93	Japan			abstract
/RC/	AO	2-260726	10-23-90	Japan			X
/RC/	AP	58-161427	9-26-83	Japan			abstract

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	AQ	
	AR	

EXAMINER

/Robert Chevalier/

DATE CONSIDERED

07/28/2009

Sheet 1 of 1		INFORMATION DISCLOSURE STATEMENT						
FORM PTO 1449 (modified)  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  LIST OF REFERENCES CITED BY APPLICANT(S) <i>(Use several sheets if necessary)</i>  Date Submitted to PTO: August 5, 2008				ATTY DOCKET NO. 2004_0217		SERIAL NO. 10/780,552		
				APPLICANT Mitsuaki OSHIMA				
				FILING DATE February 18, 2004		GROUP 2615		
U.S. PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
/RC/	AA	5,706,428	1-6-98	Boer et al.				
/RC/	AB	6,526,264	2-25-03	Sugar et al.				
/RC/	AC	5,950,124	9-7-99	Trompower et al.				
/RC/	AD	6,977,944	12-20-05	Brockmann et al.				
/RC/	AF	7,352,822	4-1-08	Oshima				
/RC/	AF	7,362,813	4-22-08	Oshima				
/RC/	AG	7,158,577	1-2-07	Oshima				
	AH							
	AI							
FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
	BA							
	BB							
	BC							
	BD							
	BE							
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)								
/RC/	CA	U.S. Office Action issued <u>May 5, 2008</u> in U.S. Application Serial No. <u>11/980,510</u>						
/RC/	CB	U.S. Office Action issued <u>June 24, 2008</u> in U.S. Application Serial No. <u>11/905,978</u>						
	CC							
EXAMINER				DATE CONSIDERED				
/Robert Chevalier/				04/08/2009				

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

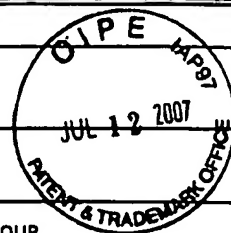


## INFORMATION DISCLOSURE STATEMENT

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: July 12, 2007

ATTY DOCKET NO.  
2004\_0217SERIAL NO.  
10/780,552APPLICANT  
Mitsuaki OSHIMAFILING DATE  
February 18, 2004GROUP  
2615

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/RC/	AA	4,882,725	11-21-89	Noda et al.			
/RC/	AB	4,985,769	1-15-91	Yasumoto et al.			
/RC/	AC	5,276,507	1-4-94	Uwabata et al.			
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
/RC/	AJ	60-24753	2-7-85	Japan			partial & abstract	
/RC/	AK	2-278940	11-15-90	Japan			partial & abstract	
	AL							
	AM							
	AN							

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

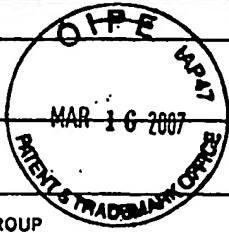
	AO	
	AP	
	AQ	

EXAMINER


/Robert Chevalier/

DATE CONSIDERED

04/08/2009

-Sheet 1 of 1		INFORMATION DISCLOSURE STATEMENT					
FORM PTO 1449 (modified)  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  LIST OF REFERENCES CITED BY APPLICANT(S) <i>(Use several sheets if necessary)</i>  Date Submitted to PTO: March 16, 2007				ATTY DOCKET NO. 2004_0217		SERIAL NO. 10/780,552	
				APPLICANT Mitsuaki OSHIMA			
				FILING DATE February 18, 2004			
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/RC/	AA	5,210,770	5-11-93	Rice			
/RC/	AB	5,519,730	5-21-96	Jasper et al.			
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AJ						
	AK						
	AL						
	AM						
	AN						
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AO						
	AP						
	AQ						
EXAMINER				DATE CONSIDERED			
/Robert Chevalier/				04/08/2009			

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 1 of 1		INFORMATION DISCLOSURE STATEMENT						
FORM PTO 1449 (modified) " "  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)  Date Submitted to PTO: February 7, 2007			ATTY DOCKET NO. 2004_0217		SERIAL NO. 10/780,552			
			APPLICANT Mitsuaki OSHIMA					
			FILING DATE February 18, 2004			GROUP 2615		
U.S. PATENT DOCUMENTS								
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
/RC/	AA	4,267,592	5-12-81	Craiglow				
/RC/	AB	4,601,045	7-15-86	Lubarsky				
/RC/	AC	4,912,706	3-27-90	Eisenberg et al.				
/RC/	AD	4,914,655	4-3-90	Johannes et al.				
/RC/	AE	5,018,198	5-21-91	Takahashi				
/RC/	AF	4,003,002	1-11-77	Snijders et al.				
/RC/	AG	4,053,713	10-11-77	Nitadori				
	AH							
	AI							
FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
/RC/	AJ	3-13145	1-22-91	Japan			abstract	
/RC/	AK	4-322592	11-12-92	Japan			abstract	
/RC/	AL	63-253738	10-20-88	Japan			abstract	
/RC/	AM	62-502932	11-19-87	Japan			abstract	
/RC/	AN	58-107740	6-27-83	Japan			abstract	
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)								
	AO							
	AP							
	AQ							
EXAMINER				/Robert Chevalier/  DATE CONSIDERED 04/08/2009				

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 1 of 1		INFORMATION DISCLOSURE STATEMENT					
FORM PTO 1449 (modified)  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)				ATTY DOCKET NO. 2004_0217		SERIAL NO. 10/780,552	
Date Submitted to PTO: December 21, 2005				APPLICANT Mitsuaki OSHIMA		FILING DATE February 18, 2004	
				GROUP 2615			
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/RC/	AA	4,597,090	6-24-86	Forney, Jr.			
/RC/	AB	4,077,021	2-28-78	Csajka et al.			
/RC/	AC	2005/0084750	4-21-05	Wang et al.			
/RC/	AD	2005/0058633	3-17-05	Epstein et al.			
/RC/	AE	2005/0922922					
/RC/	AF	4,918,437	4-17-90	Jasinski et al.			
/RC/	AG	5,023,889	6-11-91	Divsalar et al.			
/RC/	AH	5,063,452	11-5-91	Higurashi			
/RC/	AI	5,124,852	6-23-92	Suwa et al.			
/RC/	AJ	5,136,380	8-4-92	Cho			
/RC/	AK	5,146,335	9-8-92	Kim et al.			
/RC/	AL	5,148,422	9-15-92	Sako et al.			
/RC/	AM	5,218,436	6-8-93	Sugiyama et al.			
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
/RC/	AN	2627574	7-21-04	CN			
/RC/	AO	1529838	5-11-05	EP			abstract
/RC/	AP	1499725	5-26-04	CN			only abstract
/RC/	AQ	2004-159207	6-3-04	JP			corresponds to AP
/RC/	AR	1528854	5-11-05	EP			only abstract
/RC/	AS	52118	12-16-02	UA			only abstract
/RC/	AT	1569334	1-26-05	CN			
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AU						
EXAMINER				DATE CONSIDERED			
/Robert Chevalier/				04/08/2009			

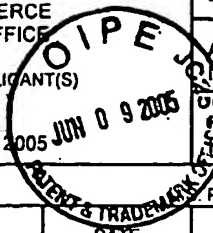
\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include cop. this form with next communication to applicant.

## INFORMATION DISCLOSURE STATEMENT

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: June 9, 2005

ATTY DOCKET NO.  
2004\_0217SERIAL NO.  
10/780,552APPLICANT  
Mitsuaki OSHIMAFILING DATE  
February 18, 2004GROUP  
2615

## PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/RC/	AA	3,824,548	7-16-74	Sullivan et al.			
/RC/	AB	3,959,726	5-25-76	Hinoshita et al.			
/RC/	AC	4,303,939	12-1-81	Stephens et al.			
/RC/	AD	4,303,941	12-1-81	Marti et al.			
/RC/	AE	4,809,426	1-5-82	Tanaka et al.			
/RC/	AF	4,535,352	8-85	Haskell			
/RC/	AG	4,564,858	1-14-86	Resch			
/RC/	AH	4,581,639	4-8-86	Judge			
/RC/	AI	4,769,819	9-6-88	Matsutani et al.			
/RC/	AJ	4,794,447	12-27-88	Tsinberg			
/RC/	AK	4,800,426	1-24-89	Glenn			
/RC/	AL	4,817,192	3-28-89	Phillips et al.			
/RC/	AM	5,007,088	4-9-91	Ooi et al.			
/RC/	AN	5,029,003	7-91	Jonnalagadda			
/RC/	AO	5,134,464	7-28-92	Basile et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
/RC/	AP	5-327807	12-10-93	Japan			abstract

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

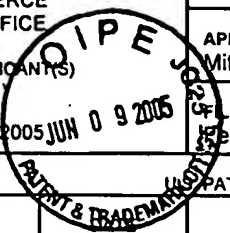
/RC/	AQ	Masafumi SAITO et al., "Bit Error Rate Characteristics of OFDM in Multipath Environment", 1991					
/RC/	AR	Ryutaro OHMOTO et al., " $\pi/4$ -shift QPSK Subcarrier Transmission", 1991					

EXAMINER

/Robert Chevalier/

DATE CONSIDERED

07/28/2009

Sheet 2 of 2		INFORMATION DISCLOSURE STATEMENT					
FORM PTO 1449 (modified)  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)  Date Submitted to PTO: June 9, 2005				ATTY DOCKET NO. 2004_0217		SERIAL NO. 10/780,552	
				APPLICANT Mitsuki OSHIMA		GROUP 2615	
				FILING DATE February 18, 2004			
PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER		NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/RC/	AA	5,181,112	1-19-93	Citta et al.			
/RC/	AB	5,377,051	12-27-94	Lane et al.			
/RC/	AC	5,400,084	3-21-95	Scarpa			
/RC/	AD	5,576,902	11-19-96	Lane et al.			
/RC/	AE	5,218,622	6-8-93	Fazel et al.			
/RC/	AF	5,561,468	10-1-96	Bryan et al.			
/RC/	AG	5,598,220	1-97	Citta et al.			
/RC/	AH	5,214,656	5-25-93	Chung et al.			
	AI						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
/RC/	AJ	7-264148	10-13-95	Japan			abstract
/RC/	AK	7-322219	12-8-95	Japan			abstract
/RC/	AL	3-48587	3-1-91	Japan			abstract
	AM						
	AN						
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
/RC/	AO	J. A. C. Bingham, "Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come", IEEE Communications Magazine, Vol. 28, May 1990, pages 5-8 and 11-14					
/RC/	AP	B. Hirosaki, "An Orthogonally Multiplexed QAM System Using the Discrete Fourier Transform", IEEE Transactions on Communications, Vol. Com-29, No. 7, July 1981, pages 982-989					
/RC/	AQ	L. J. Cimini, Jr., "Analysis and Simulation of a Digital Mobile Channel Using Orthogonal Frequency Division Multiplexing", IEEE Transactions on Communications, Vol. Com-33, No. 7, July 1985, pages 665-675 and Annex					
EXAMINER				DATE CONSIDERED			
/Robert Chevalier/				07/28/2009			

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include cop. this form with next communication to applicant.